ADDITIONAL MATERIALS TOWARD A MONOGRAPH OF THE GENUS CALLICARPA. XIV

Harold N. Moldenke

CALLICARPA L.

Additional & amended bibliography: L., Syst. Nat., ed. 7, 87 & [227]. 1748; L., Gen. Pl., ed. 4, 415--416 & [446]. 1752; L., Syst. Nat., ed. 8, 94 & [231] (1756) and ed. 10, 2: 883, 885, 894, & 897. 1759; L., Gen. Pl., ed. 6, 55 & [585]. 1764; Retz., Obs. 5: 1—2. 1789; Roem. & Schult. in L., Syst. Veg., ed. 15 nov., 3: 93—98. 1818; Wall. in Roxb., Fl. Ind., ed. 1 [Carey & Wall.], 1: 405--411 & 481. 1820; Blume, Bijdr. Fl. Nederl. Ind. 14: 817—819. 1826; Sieb. & Zucc., Fl. Jap. Fam. Nat. 2: 154--156. 1846; Hassk., Pl. Jav. Rar. 490--491. 1848; Jacques & Hérincq, Man. Gén. Pl. Arb. & Arbust. [Fl. Jard. Eur.] 3: 405 & 502--504. 1851; Van Houtte, Fl. des Serres 30 [ser. 2, 13]: 127—128, pl. 1359. 1858; W. B. Hemsl. in Godman & Salvin, Biol. Cent.-Am. Bot. 2: 538. 1882; W. B. Hemsl. in Thomson & Murray, Rep. Scient. Res. Voy. Challenger 3, Bot. 1: 110, 128b, & 176. 1885; K. Schum. & Hollr., Fl. Kaiser Wilh.-land 118--119. 1889; Shirasawa, Bull. Coll. Agric. Tokyo Imp. Univ. 2: [Jap. Laub. Winterzust.] 269, pl. 14 [Tafel 10], fig. 8—10. 1895; Heyne, Nutt. Plant. Nederl. Ind., ed. 1, 4: 106—108 & xii (1917) and ed. 2, 1311—1312. 1927; J. M. Cowan, Rec. Bot. Surv. India 12: 29—31, 47, 48, 50, 65, & 68. 1929; Bor, Indian Forest Rec. 3: 152--195. 1942; Plouvier, Chem. Abstr. 45: 5244. 1951; E. J. Salisb., Ind. Kew. Suppl. 11: 40. 1953; Masam., Sci. Rep. Kanazawa Univ. 4 [Enum. Trachy. Jap. 7]: 46—47. 1955; G. Taylor, Ind. Kew. Suppl. 12: 27. 1959; Martin & Barkley, Seed Ident.Man. 115 & 195, pl. 132, fig. 261 & 792. 1961; Ohwi, Fl. Jap. 763—764 & 997—998. 1965; Carrick & al., Chem. Pharm. Bull. Tokyo 16: 2436—2441. 1968; Maiti, Bull. Bot. Surv. India 10: 111—112. 1968; Farnsworth, Blomster, Quimby, & Schermerhorn, Lynn Index 6: 261 & 262. 1969; K. C. Sahni, Indian Forest. 95: 333, 335, & 346. 1969; Chan & Teo, Chem. Pharm. Bull. Tokyo 17: 1284--1286. 1969; Moldenke in Correll & Johnston, Man. Vasc. Pl. Tex. [Contrib. Tex. Res. Found. Bot. 6:] 1259, 1313, 1339, 1805, 1808, 1809, 1827, 1828, 1846, 1870, & 1875. 1970; Farnsworth, Pharmacog. Titles 5 (4): iii & items 3982, 4114, & 4115 (1970), 5 (9): ii & item 10008 (1970), and 5 (11): iii & item 14140. 1970; Willaman & Li, Lloydia Suppl. 33 (3a): 220. 1970; Moldenke, Phytologia 20: 482—499, 504, 505, 507, 508, 511, & 512 (1971) and 21: 32—55 & 101—114. 1971.

Wallich's work (1820) is sometimes innacurately cited as "1: 394", that of Siebold & Zuccarini (1846) as "(1): 526. 1844", and that of Masamune (1955) as "6 (1): 46".

Cuscuta coryli, a parasitic flowering plant, often attacks members of the genus Callicarpa.

CALLICARPA ACUMINATA H.B.K.

Additional & emended bibliography: Hassk., Cat. Pl. Bot. Bogor. Alt. 136. 1844; A. W. Hill, Ind. Kew. Suppl. 8: 37. 1933; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): [Fl. Peru] 701. 1960; Moldenke, Phytologia 20: 487—489 (1971) and 21: 101, 108, & 114. 1971.

Additional citations: MEXICO: Hidalgo: H. E. Moore 3392 (Ca—919330, N). San Luis Potosí: J. Rzedowski 10689a (Mi). Yucatán: Arrington & al. s.n. [27.IX.1964] (Ip).

CALLICARPA AMERICANA L.

Additional & emended bibliography: L., Syst. Nat., ed. 10, 2: 894. 1759; Retz., Obs. 5: 2. 1789; Roem. & Schult. in L., Syst. Veg., ed. 15 nov., 3: 93. 1818; Wall. in Roxb., Fl. Ind., ed. 1 Carey & Wall.], 1: 407 & 481. 1820; Spreng. in L., Syst. Veg., ed. 16, 1: 419. 1825; Jacques & Hérincq, Man. Gén. Pl. Arb. & Arbust. [Fl. Jard. Eur.] 3: 502. 1851; Martin & Barkley, Seed Ident. Man. 115 & 195, pl. 132, fig. 261 & 792. 1961; Farnsworth, Blomster, Quimby, & Schermerhorn, Lynn Index 6: 262. 1969; Blair & Epps, U. S. Forest Serv. Res. Paper SO.51: 1, [3], 9—11, 14, & 16—22. 1969; Blair & Epps, Biol. Abstr. 51: 11546. 1970; Moldenke in Correll & Johnston, Man. Vasc. Pl. Tex. [Contrib. Tex. Res. Found. Bot. 6:] 1339, 1805, 1808, 1809, 1827, 1828, 1870, & 1875. 1970; Moldenke, Phytologia 20: 490—493 (1971) and 21: 35, 49, 50, & 102. 1971.

Emended illustrations: Martin & Barkley, Seed Ident. Man. 195, pl. 132, fig. 261 & 792. 1961; Blair & Epps, U. S. Forest Serv. Res. Paper SO.51: [3]. 1969.

Blair & Epps (1969) list this species as one of seven browse species in Louisiana and state that it is "abundant in pine-hardwood stands which have a relatively high canopy. It often dominates the lower cover in a forest clearing." Traverse describes the plant as a shrub, 2—3 m. tall, with a base trunk diameter of 4 cm., arching and sprawling, some weakly upright, the stems brittle, the bark "with small warts and tubercles", light-brown, the "berries" [drupes] green [when immature], growing in open woods above a backswamp, in dark-brown much-cracked silty soil, in the dominant complex of Fraxinus-Gleditsia-Liquidambar-Pinus taeda formation.

Additional citations: TEXAS: Chambers Co.: Traverse 823 (Go).

CALLICARPA AMERICANA var. LACTEA F. J. Muller

Additional bibliography: Moldenke in Correll & Johnston, Man. Vasc. Pl. Tex. [Contrib. Tex. Res. Found. Bot. 6:] 1339 & 1809. 1970; Moldenke, Phytologia 20: 492—493. 1971.

CALLICARPA ANGUSTA Schau.

Additional & emended bibliography: Maxim., Bull. Acad. Imp. Sci. St. Pétersb. 31: 75. 1886; Maxim., Mél. Biol. 12: 506. 1886; Moldenke, Phytologia 20: 493 (1971) and 21: 108. 1971.

CALLICARPA ARBOREA Roxb.

Additional & emended bibliography: Wall. in Roxb., Fl. Ind., ed. 1 [Carey & Wall.], 1: 405—406 & 481. 1820; Jacques & Hérincq, Man. Gén. Pl. Arb. & Arbust. [Fl. Jard. Eur.] 3: 503. 1851; K. Schum. & Hollr., Fl. Kaiser Wilh.-land 119. 1889; Prain, Journ. Asiat. Soc. Beng. 62: 50, 54, 55, & 74. 1893; K. Schum. & Lauterb., Fl. Deutsch. Schutzgeb. Südsee 521. 1900; Heyne, Nutt. Plant. Nederl. Ind., ed. 1, 107. 1917; J. M. Cowan, Rec. Bot. Surv. India 12: 29—31, 47, 48, 50, 65, & 68. 1929; Bor, Indian Forest Rec. 3: 152—195. 1942; K. C. Sahni, Indian Forest. 95: 333, 335, & 346. 1969; Moldenke, Phytologia 20: 493—495 (1971) and 21: 50, 103, & 108. 1971.

Prain (1893) records this species from Barren and Narcodam islands in the Andamans group, while Sahni (1969) records it from Nefa, India.

CALLICARPA CANDICANS (Burm. f.) Hochr.

Additional synonymy: Callicarpa euchlora Schau. ex K. Schum. & Lauterb., Fl. Deutsch. Schutzgeb. Südsee 522, nom. nud. 1900.

Additional & emended bibliography: Retz., Obs. 5: 1—2. 1789; Roem. & Schult. in L., Syst. Veg., ed. 15 nov., 94, 96, & 98. 1818; Wall. in Roxb., Fl. Ind., ed. 1 [Carey & Wall.], 1: 406—407 & 481. 1820; Blume, Bijdr. Fl. Nederl. Ind. 14: 817 & 819. 1826; Hassk., Cat. Pl. Bogor. Alt. 136. 1844; Jacques & Hérincq, Man. Gén. Pl. Arb. & Arbust. [Pl. Jard. Eur.] 3: 502. 1851; W. B. Hemsl. in Thomson & Murray, Rep. Scient. Res. Voy. Challenger 3, Bot. 1: 110 & 176. 1885; Heyne, Nutt. Plant. Nederl. Ind., ed. 1, 4: 107. 1917; E. D. Merr., Philip. Journ. Sci. 30: 426. 1926; Heyne, Nutt. Plant. Nederl. Ind., ed. 2, 1311. 1927; Moldenke, Phytologia 20: 495 & 499 (1971) and 21: 32, 36, 38, 47, 49, 50, 101—103, 108, & 114. 1971.

Bakhuizen van den Brink (1921) suggests that C. lanata Zipp., of Timor, may be conspecific with what he calls "C. cana", but I place it in the synonymy of C. pedunculata R. Br. Sprengel (1825) regarded C. tomentosa Willd. as a synonym of C. cana L., but I regard it as C. kochiana Mak., not C. nudiflora Hook. & Arn. as previously stated.

Schumann & Lauterbach (1900) aver that C. candicans "ist im Südasien verbreitet bis zu den Philippinen und Australien. — Burkill vermuthet, das C. euchlora Schauer mit ihr zusammenfällt." Probably this binomial is a lapsus calami for C. erioclona Schau., but since it is here first published as a possible synonym of C. candicans I am so regarding it — at least until I succeed in locating the original Burkill reference.

The R. Parkinson s.n. [1901] and C. T. White 8981, distributed as C. candicans, are actually C. pedunculata R. Br.

CALLICARPA CANDICANS var. SUMATRANA (Miq.) Moldenke

Additional bibliography: Heyne, Nutt. Plant. Nederl. Ind., ed. 1, 4: 107 (1917) and ed. 2, 1311. 1927; Moldenke, Phytologia 21:

32, 38, & 108. 1971.

This plant has been found growing in thickets or open places, with immature fruit in February.

CALLICARPA DICHOTOMA (Lour.) K. Koch

Additional & emended bibliography: Roem. & Schult. in L., Syst. Veg., ed. 15 nov., 3: 97. 1818; Wall. in Roxb., Fl. Ind., ed. 1 [Carey & Wall.], 1: 410—411 & 481. 1820; Jacques & Hérincq, Man, Gén. Pl. Arb. & Arbust. [Fl. Jard. Eur.] 3: 503. 1851; Van Houtte, Fl. des Serres 30 [ser. 2, 13]: 127—128, pl. 1359. 1858; Regel, Gartenfl. 9: 56. 1860; Shirasawa, Bull. Coll. Agric. Tokyo Imp. Univ. 2: [Jap. Laubh. Winterzust.] 269, pl. 14 [Tafel 10], fig. 9. 1895; Ohwi, Fl. Jap. 763—764, 997, & 998. 1965; Farnsworth, Blomster, Quimby, & Schermerhorn, Lynn Index 6: 262. 1969; Moldenke, Phytologia 20: 491 (1971) and 21: 34—37, 42, 46, 49, 103, & 108. 1971.

Emended illustrations: Shirasawa, Bull. Coll. Agric. Tokyo Imp. Univ. 2: [Jap. Laubh. Winterzust.] pl. 14 [Tafel 10], fig. 9. 1895.

The "C. purpurea" illustrated in Van Houtte, Fl. des Serres 30 [ser. 2, 13]: 127 & 128, pl. 1359 (1858), Lem. & Verschaf., Illust, Hort. 6: pl. 202 (1859), and Regel, Gartenfl. 9: 56 (1860) and often cited for C. dichotoma, is actually C. rubella Lindl.

The Togasi 1667, distributed as typical C. dichotoma, is actually the type collection of f. albifructa Moldenke.

CALLICARPA ELEGANS Hayek

Additional bibliography: Moldenke, Phytologia 21: 36. 1971.

The Ramos & Edaño s.n. [Herb. Philip. Bur. Sci. 49011], distributed and previously cited by me as C. elegans, actually proves to be C. phanerophlebia Merr.

CALLICARPA ERIOCLONA Schau.

Emended synonymy: Callicarpa repanda K. Schum. & Warb. apud K. Schum. & Lauterb., Fl. Deutsch. Schutzgeb. Südsee 522. 1900.

Additional bibliography: Moldenke, Phytologia 20: 495 (1971) and 21: 36—37, 50, & 103. 1971.

It is very probable that the C. euchlora Schau. of Schumann & Lauterbach (1900) is only a misspelling of C. erioclona Schau.

CALLICARPA ERIOCLONA var. PAUCINERVIA (Merr.) Moldenke

Additional bibliography: Moldenke, Phytologia 21: 36—37. 1971.

Koidzumi (1918) avers that this taxon is remotely related to C. nishimurae Koidz.

CALLICARPA FERRUGINEA Sw.

Additional & emended bibliography: Roem. & Schult. in L., Syst. Veg., ed. 15 nov., 3: 95. 1818; Jacques & Hérincq, Man. Gén. Pl. Arb. & Arbust. [Fl. Jard. Eur.] 3: 503. 1851; Moldenke, Phy-

tologia 21: 37. 1971.

CALLICARPA FORMOSANA Rolfe

Additional & emended bibliography: E. D. Merr., Philip. Journ. Sci. Bot. 14: 452. 1919; Hill & Salisb., Ind. Kew. Suppl. 10: 38. 1947; Willaman & Li, Lloydia Suppl. 33 (3a): 220. 1970; Moldenke, Phytologia 21: 36--39, 49, 101, & 102. 1971.

Merrill (1919) states that this species and C. obtusifolia Merr. are "manifestly" related, the latter differing by its elliptic to oblong-elliptic, usually rounded or obtuse, never acuminate leaf-blades. Chang (1951) reduces C. formosana Rolfe and C. aspera Hand.-Mazz. to synonymy under C. pedunculata R. Br., thus following the disposition of Bakhuizen van den Brink (1921).

CALLICARPA FORMOSANA var. CHINENSIS P'ei

Additional bibliography: H.-T. Chang, Act. Phytotax. Sin. 1: 271, 273, 278, 282--283, & 311, fig. 1 & 2. 1951; G. Taylor, Ind. Kew. Suppl. 13: 21. 1966; Moldenke, Phytologia 21: 38. 1971.

Illustrations: H.-T. Chang, Act. Phytotax. Sin. 1: 273, fig. 1 & 2. 1951.

CALLICARPA HETEROTRICHA Merr.

Bibliography: E. D. Merr., Journ. Arnold Arb. 23: 192--193. 1942; R. J. Salisb., Ind. Kew. Suppl. 11: 40. 1953.

Merrill (1942) describes this taxon as follows: "Arbor 7--8 m. alta, ramulis ultimis 4--5 mm. diametro, densissime implicato-pubescentibus, pilis brevioribus numerosissimis substellatis, paucioribus intermixtis elongatis, depauperato-plumosis, subflaccidis, ad 3 mm. longis, indumento subferrugineo; foliis chartaceis, integris, obovatis vel oblongo-obovatis, acutis vel breviter acuminatis, basi acutis vel leviter decurrenti-acuminatis, 15--20 cm. longis, 6.5--10 cm. latis, supra olivaceis, ad costam nervosque dense pubescentibus, indumento ut in ramulis junioribus, parenchymate pilis sparsis brevibus stellatis vel depauperato-plumosis insperso, subtus pallidioribus sed haud albidis, ad costam nervosque densissime, in parenchymate manifeste sed haud dense stellato-pubescentibus, pilis superficiem haud occultantibus; nervis primariis utrinque 9--11, utrinque perspicuis, subtus elevatis, curvatis, ad marginem arcuato-anastomosantibus, reticulis primariis subparallelis; petiolo 1.5--2.5 cm. longo, indumento ut in ramulis junioribus; inflorescentiis multifloris, cymosis, pedunculatis, 8--12 cm. longis dense villosis, pilis stellatis et depauperato plumosis intermixtis; calycibus obovoideis, subtruncatis vel obscurissime 5-dentatis, extus dense pallide pubescentibus, circiter 1 mm. longis; corolla 3 mm. longa, sursum ampliata, tubo 2 mm. longo, lobis 4, suborbiculari-obovatis, late rotundatis, 1 mm. longis; staminibus 4, filamentis gracilibus, glabris, longe exsertis, 6 mm. longis; antheris ellipsoideis, 1 mm. longis; ovario globoso, glabro, stylo quam filamentis paullo longiore."

The type of the species was collected by Paul Alfred Pételot (no. 2608) in humid forests, at an altitude of about 600 m., on

Mount Bavi, Sontoy Province, Tonkin, Indochina, on July 2, 1940, and is deposited in the herbarium of the Arnold Arboretum at Jamaica Plain, Massachusetts. Merrill (1942) comments that "In Dr. Dop's key this falls with Callicarpa arborea Roxb. as interpreted by him, yet it differs from Roxburgh's species in so many striking characters, and for that matter all other Chinese and Indo-Malaysian species known to me, that I am constrained to describe it as new. The very dense indumentum on the branchlets, parts of the inflorescences, petioles, and on the midribs and lateral nerves on both surfaces of the leaves is made up of short crowded stellate hairs and much longer subplumose ones, the latter often 3 mm. in length, and usually with very few, short, lateral branchlets, these lateral branchlets scarcely stellate in arrangement. The shorter stellate hairs on the parenchyma on the lower surface by no means conceal the latter, the more or less scattered stellate hairs on other than the midrib and lateral nerves scarcely touching each other."

CALLICARPA JAPONICA Thunb.

Additional & emended bibliography: Roem. & Schult. in L., Syst. Veg., ed. 15 nov., 3: 96 & 97. 1818; Shirasawa, Bull. Coll. Agric. Tokyo Imp. Univ. 2: [Jap. Laubh. Winterzust.] 269, pl. 14 [Tafel 10], fig. 10. 1895; E. D. Merr., Philip. Journ. Sci. 30: 426. 1926; Pluvier, Chem. Abstr. 45: 5244. 1951; Ohwi, Fl. Jap. 763--764, 997, & 998. 1965; Farnsworth, Blomster, Quimby, & Schermerhorn, Lynn Index 6: 262 & 263. 1969; Moldenke, Phytologia 20: 491 & 495--497 (1971) and 21: 33--35, 40--50, 101--104, & 106. 1971.

Emended illustrations: Shirasawa, Bull. Coll. Agric. Tokyo Imp. Univ. 2: [Jap. Laubh. Winterzust.] pl. 14 [Tafel 10], fig. 10. 1895.

Pluvier (1950) reports the presence of a fatty oil, a reducing sugar, and pectin in the fruit of this species.

The Lindquist s.n. [25/9/1959], distributed as typical C. japonica, is actually better placed as var. angustata Rehd.

Additional citations: JAPAN: Honshu: Jimbo s.n. [6/11/1927] (Go); Kobayashi 16253 (Go), 16483 (Go).

CALLICARPA JAPONICA var. ANGUSTATA Rehd.

Additional bibliography: Ohwi, Fl. Jap. 764 & 997. 1965; Moldenke, Phytologia 21: 33, 35, 42--44, 47, 48, 101, 103, & 113. 1971.

Additional citations: JAPAN: Honshu: Lindquist s.n. [25/9/1959] (Go).

CALLICARPA KOCHIANA Mak.

Additional & emended bibliography: Roem. & Schult. in L., Syst. Veg., ed. 15 nov., 3: 93 & 95. 1818; A. W. Hill, Ind. Kew. Suppl. 8: 37. 1933; Ohwi, Fl. Jap. 764 & 998. 1965; Moldenke, Phytologia 21: 32, 35, 42, 46--47, 50, & 103. 1971.

The Kobayashi 15903, distributed as C. kochiana, is actually C. mollis Sieb. & Zucc.

CALLICARPA LONGIFOLIA Lam.

Additional & emended bibliography: Jacques & Hérincq, Man. Gén. Pl. Arb. & Arbust. [Fl. Jard. Eur.] 3: 503. 1851; W. B. Hemsl. in Thomson & Murray, Rep. Scient. Res. Voy. Challenger 3, Bot. 1: 110. 1885; K. Schum. & Hollr., Fl. Kaiser Wilh.-land 119. 1889; K. Schum. & Lauterb., Fl. Deutsch. Schutzgeb. Südsee 522. 1900; Heyne, Nutt. Plant. Nederl. Ind., ed. 1, 107--108 (1917) and ed. 2, 1311--1312. 1927; Chan & Teo, Chem. Pharm. Bull. Tokyo 17: 1284--1286. 1969; Farnsworth, Pharmacog. Titles 5 (4): iii & item 4114. 1970; Moldenke, Phytologia 21: 101--114. 1971.

Blume (1826) describes the following two unnamed varieties: "Variet a. foliis longiter acuminatis, serraturis distinctioribus, cymis laxis petiolo longioribus. Crescit in terris argillosocalcareis. Variet b. foliis minute serrulatis glabriusculis. Crescit in fruticetis montanis Seribu circa Rompieu." This reference is sometimes inaccurately cited as "p. 808" instead of p. 818. An additional recorded vernacular name for the species is "kajoe si marsioe-sioe".

The Wang 35683, distributed as typical C. longifolia, appears to be f. floccosa Schau. instead.

Additional citations: GREATER SUNDA ISLANDS: Sumatra: Boeea 10864 (N).

CALLICARPA LONGIFOLIA f. FLOCCOSA Schau.

Emended synonymy: Callicarpa oblongifolia Hassk., Pl. Jav. Rar. 490. 1848.

Additional bibliography: Spreng. in L., Syst. Veg., ed. 16, 1: 420. 1825; Hassk., Pl. Jav. Rar. 490--491. 1848; Heyne, Nutt. Plant. Nederl. Ind., ed. 2, 1311--1312. 1927; Moldenke, Phytologia 21: 101--104, 106--109, & 112--114. 1971.

Recent collectors have found this plant growing in shrub thickets, secondary scrub, open bush country, often in red soil, on level land or strand, on slopes of grassy hillsides, along trails, near rivers, in the half-shade of rubber plantations, and at the edge of forests or thickets, at altitudes from sealevel to 1400 meters, flowering from October to August and fruiting from November to September. Thaworn refers to it as "scattered in evergreen jungles" in Thailand, while Phloenchit also avers that it is "not common in evergreen jungles" in that land. The Clemenses tell us that it is a "common shrub in forests or thickets" in Sarawak. On Anambas Island it is said by Henderson to be a common shrub or small tree. Main found it "scattered in forests" in Dutch New Guinea.

The corollas are described as "blue" on Goklin 788 and on Hansen & Smitinand 12028, "violet" on Larsen, Smitinand, & Warncke 484 & 799 and Villamil 217, "lavender" on Clemens & Clemens 21090 and Yates 1604, "purple" on Phloenchit 475, Thaworn 282, and Yates 1486, "light-purple" on Phloenchit 498, "pale-mauve" on Purseglove P.5167, "pink" on Chun & Tso 43543, Herb. Philip. Bur. Sci. 44326, and Nur 18835, "purplish-white" on North Borneo Forest.

Dept. A.2248, "yellow" on Arsat 1158, "green" on North Borneo Forest. Dept. A.574, "light-green" on North Borneo Forest. Dept. A.658, "whitish" on H. H. Bartlett 8603, "white tinged with lavender" on Yates 653, and "white" on Clemens & Clemens 21785, Hoogland 3653, H. G. Keith 1166, Kornassi 773, Krukoff 4035, North Borneo Forest. Dept. A.1558 & A.2010, and Pleyte 667.

The Sumatran specimens are in general more hairy than those from most other localities, with the pubescence less distinctly stellate. A wood collection accompanies H. H. Bartlett 6936 at the University of Michigan and R. S. Williams 2116 at the New York Botanical Garden. The leaves are insect-galled on Bakhuizen van den Brink 1903, while the fruits are galled on the same collector's no. 186. Bünnemeijer 3783 has very tomentose stems and bears a striking likeness to the genus Geunsia. Lam 2049 is placed here tentatively, since it comprises only unattached fruit.

The C. lanceolaria ascribed to "Hort." belongs in the synonymy of typical C. longifolia Lam. H. J. Lam (1914, 1919) includes C. albida Blume in the synonymy of his C. cana var. sumatrana (Miq.) H. J. Lam, a taxon now known as C. candicans var. sumatrana (Miq.) Moldenke. Backer & Bakhuizen van den Brink (1965), however, regard C. albida Blume as a valid species, with C. blumei Zoll. & Moritzi and "C. longifolia Auct. non Lamk." as synonyms. From this supposed synonymy and from their description it would appear that they are adopting this name for both what I regard as typical C. longifolia Lam. and its f. floccosa Schau. Their composite description reads as follows: "Wild-growing. Drupe white; cymes on 1/2 — 1 1/4 cm long peduncles, stellate-hairy, 3--7 cm across; calyx shortly dentate, glabrous or stellate-hairy, 1 1/4 -- 1 3/4 mm high; corolla lilac, 2 1/2 -- 3 mm high, shortly lobed; lobes rounded, outside glabrous or stellate-hairy; stamens lilac, 3--5 mm; style 4--7 mm. Young branches densely to thinly stellate-hairy; leaves oblong-lanceolate, acuminate, acute, finely serrate-dentate, gland-dotted beneath or sometimes on both surfaces, when adult thinly stellate-hairy or glabrous on the upper surface (often with the exception of the large nerves), stellate-hairy or glabrous on the lower surface, 7--18 cm by 2 1/2 — 6 1/2 cm; petiole 3/4 — 2 cm. Shrub or small tree. 1.50—6.00; I--XII; W.C.E., Mad.; 1—1700; brushwood, light forest, village-groves. Variable! (C. blumei Z. & M., — C. longifolia Auct. non Lamk.)."

Singh tells us that the plant is native to eastern Bengal and the Khasi Hills. Rao & Rabha (1966) record it from Assam, while Deb, Sengupta, & Malick (1968) found it in Bhutan, citing Sengupta 896.

Chang (1951) maintains both C. longifolia f. floccosa and var. lanceolaria as valid taxa. For the former he cites nos. 28677, 66799, & 68796 and for the latter nos. 100, 3282, 27118, 33354, 36332, 62267, 66029, & 71071 of collectors and/or herbaria whose

names, unfortunately, he gives only in Chinese characters.

Common and vernacular names recorded for C. longifolia f. floccosa are "bagiha", "balah balah", "betoe-betoe", "betoe-betoe balah", "common callicarpa", "dotdrot", "kajoe bebetik", "kajoe sioe-sioe", "kapasan", "katoempang soend", "ki katoempang tanar", "leloya", "marbasi", "mumuni", "nasi-nasi", "paroeh", "saring nudat", "sasad", "si marsioe-sioe", and "sioe-sioe".

Roxburgh (1820) describes his C. lanceolaria as "Shrubby, hairy. Leaves lanceolar, serrulate, acuminate. Panicles axillary, short-peduncled, sub-globular. Berries white. H. Koamoora. A pretty, shrubby species, with narrower leaves than any of the other species I have yet met in India, they taper most toward the base, are nearly smooth on the upper surface, but very hoary underneath; as are all the other tender parts. Flowers numerous, minute, purple. A native of the forests of Silhet, where it is in flower most part of the year." He describes "C. longifolia Linn. sp. pl. ed. Willd. i. 621", on the other hand, as "Shrubby with erect weak branches. Leaves rather long-petioled, broad-lanceolate, serrulate, smooth above, downy underneath. Panicles axillary, dichotomous, length of the pedicels. Berries white. A native of Prince of Wales Island, where it blossoms in June, July and August." It would appear from his statement that the leaf-blades are "downy underneath" here also, that his plant was also f. floccosa rather than the typical C. longifolia Lam., although I would have expected C. pedunculata R. Br. at that locality. The specimen on which this record is based should be re-examined. Watt (1889) claims that what he calls C. longifolia var. lanceolaria is native to eastern Bengal, the Khasi Hills, Chittagong, and Burma.

The statement by Bentham & Mueller (1870) that the C. longifolia of Australia has its "corolla densely pubescent" causes me to wonder if f. floccosa may not also be involved here, although the statement in the same sentence that the leaves are "green on both sides" points to the typical form and I have thus far seen only specimens of the typical form from that continent.

Bakhuizen van den Brink (1921) describes this form as "Forma β floccosa Schau. in DC. Prod. Syst. Nat. XI (1847) p. 645. — A stout shrub or small tree; branchlets, cymes, and petioles densely floccose-hairy; leaves oblong or broadly lanceolate, distinctly serrulate-denticulate, upper side sparsely stellate-hairy when adult, or glabrescent, except on the nerves, lower side rather densely floccose; cymes stout, globose, usually rather short-petioled; calyx densely and floccosely stellate-hairy; corolla purple or rose, densely woolly outside."

The Clemens & Clemens 3029 & 21090, Krukoff 4053, Mondi 23, G. E. Perry 5228, Toroes 164, C. Wang 35683, and R. S. Williams 2116, cited below, were previously regarded by me as representing typical C. longifolia and were so annotated by me in some herbaria. I feel now, however, that they are better placed in f. floccosa. The Elmer 20102 & 20402, cited by me under typical C. longifolia,

actually show the lower surface of the younger leaf-blades somewhat floccose, but the mature leaves seem to be glabrate beneath, so I am retaining these collections under the typical form of the species. Elmer 15336 and Lei 114 also seem to exhibit intermediate characters, some specimens more closely approaching the typical form, while others approach f. floccosa.

The Hamel & Toroes 1165, Hollrung 817, Hoogland 3653, Native Collector 273, and D. D. Wood 785, cited below, are placed here tentatively. Some specimens of these collections are also cited by me under typical C. longifolia. These specimens were mostly annotated by me a considerable number of years ago, before my present concepts of the delimitation of these taxa has crystallized. They need to be re-examined.

H. J. Lam (1924) cites Schlechter 13818 & 16453 from Northeastern New Guinea and Peekel 62 from New Ireland. The second of the Schlechter collections, however, is cited by me as typical C. longifolia.

Material of C. longifolia f. floccosa has been misidentified and distributed in herbaria under the names C. angusta Schau., C. attenuatifolia Elm., C. attenuifolia Elm., C. longifolia Lam., C. longifolia var. subglabra Schau., and C. rubella Lindl.

In all, 408 herbarium specimens and 4 mounted photographs of C. longifolia f. floccosa have been examined by me.

Citations: CHINESE COASTAL ISLANDS: Hainan: Chun & Tso 43543 (N); F. C. How 72820 (Bi); Lei 1141, in part (Bi, Bz--18043); Liang 64465 (N), 66542 (N); F. A. McClure 3195 [Herb. Canton Chr. Coll. 9743] (Ca--248685, Ca--366339); C. Wang 35399 (N, W--1670546), 35683 (Go, N), 36336 (N, W--1670667). THAILAND: Mrs. D. J. Collins 2365 (W--1701690); Hansen & Smitinand 12028 (Cp, Rf); Larsen, Smitinand, & Warncke 484 (Ac, Rf), 799 (Ac, Rf); Phloanchit 475 [Herb. Roy. Forest. Dept. 8985] (Z), 498 [Herb. Roy. Forest. Dept. 10023] (Ss); Thaworn 282 [Herb. Roy. Forest. Dept. 12359] (Sm). INDOCHINA: Annam: Clemens & Clemens 3029 (Ca--340455, Gg--156760, N), 3481 (Ca--340208). Cochinchina: Poilane 40816 (B). State undetermined: G. E. Perry 5228 [Pulo Condot] (N, S). MALAYA: Johore: Herb. Hort. Bot. Bogor. 13074 (Bz); Herb. Hort. Bot. Singap. s.n. [Aug. 1938] (Bz--72763); Holttum 9237 (Bz--72768), 10924 (Bz--72769). Kelantan: M. R. Henderson 19633 (Bz--72767, Ca--342714), Malacca: Griffith s.n. [Malacca] (Bz--18033). Pahang: Kiah bin Hadji & Strugnell 23959 (N); Nur 11102 (Bz--18037), 18835 (Bz--72766), 32651 (Ca--3259). Perak: Spare 34553 (Bz--72764). MALAYAN ISLANDS: Palau Tioman: Nur 18835 (Ca--318639). PHILIPPINE ISLANDS: Catanduanes: M. Ramos s.n. [Herb. Philip. Bur. Sci. 30328] (N, N, W--1294193). Luzon: Fénix s.n. [Herb. Philip. Bur. Sci. 28048] (W--1375173); Ramos & Edaño s.n. [Herb. Philip. Bur. Sci. 29116] (W--1376038), s.n. [Herb. Philip. Bur. Sci. 33905] (W--1263543).

Mindanao: Elmer 13536, in part (Bz--17942); E. D. Merrill 8057 (Bz--17941, W--901898); R. S. Williams 2116 (It, N, W--707821). Tawitawi: Ramos & Edaño s.n. [Herb. Philip. Bur. Sci. 44061] (Ca--257637), s.n. [Herb. Philip. Bur. Sci. 44064] (N), s.n. [Herb. Philip. Bur. Sci. 44326] (Ca--257636, N). GREATER SUNDA ISLANDS: Anambas: M. R. Henderson 20491 (Ca). Banka: Amand s.n. (Ut--49888, Ut--49889); Anta s.n. [Kostermans 1167-1164] (Bz--73013); Berkhout 300 (Bz--17995), 506 (Bz--17992, Bz--17993); Bünnemeijer 1521 (Bz--18000), 1884 (Bz--18001), 2357 (Bz--18052), 2390 (Bz--17999, Bz--25470); Kobus s.n. (Bz--17994); Teijsmann 3254 H.B. (Bz--17996), s.n. [Muntak] (Bz--17997). Billiton: Teijsmann s.n. [Billiton] (Bz--18006); Vordermann s.n. [Billiton] (Bz--18005). Bintan: Bünnemeijer 6214 (Bz--18016), 6498 (Bz--18021), 6514 (Bz--18020). Borneo: Bianehi 48 (Bz--17704); Dunselman 161 (Bz--17699); Endert 3254 (Bz--72706); Enoh 267 (Bz--72988), 398 (Bz--72987); H. Hallier B.309 (Bz--18046); Ilaim 1722 (Bz--72986); Jaheri 1417 (Bz--17696); Mondi 23 (Bz--17700, Bz--25472, N, Ut--34060a); Polak 659 (Bz--72989); Rutten 263 (Ut--22677), 459 (Bz--17698, Ut--22675), 762 (Ut--41061); Winkler 2142 (Bz--17707). Celebes: Bünnemeijer 10643 (Bz--17950), 11014 (Bz--17951), 11707 (Bz--17952), 12580 (Bz--17949); Kjellberg 397 (Bz--17944), 725 (Bz--17943); Koorders 19486b [3360] (Bz--17953, Bz--25473), 19489b [2952] (Bz--17954); Rachmat 624 (Bz--17945); J. G. F. Riedel s.n. [Gorontalo] (Bz--17947, Bz--17948). Java: Backer 57 (Bz--17842), 940 (Bz--17769), 5890 (Bz--17773), 9099 (Bz--17770), 13935 (Bz--17825), 17127 (Bz--17738), 18454 (Bz--17859, Bz--17860), 21049 (Bz--17808), 22504 (Bz--17743), 22746 (Bz--17742), 30418 (Bz--17871); Bakhuizen van den Brink 186 (Bz--17763, Ut--24877a), 807 (Bz--17761), 901 (Bz--17778, Bz--17779), 1493 (Bz--17758), 1734 (Bz--17757, Ut--80687), 1877 (Bz--17762, Ut--24879a), 1903 (Bz--17759, Bz--17760), 4662 (Bz--17777), 4814 [563] (Bz--17790), 7210 (Bz--17730); Beumée 2320 (Bz--17856), 2433 (Bz--17872), 2716 (Bz--17873), 3820 (Bz--17855), 5572 (Bz--17854), A.303 (Bz--17787); Blume s.n. [Java] (N, N); Buwalda 7528 (Bz--72898); Forbes 408 (Bz--17867, Bz--17868); Garoet & Burck 36 (Bz--17832); Gebruik 81 (Ca--792214); H. Hallier 81 (Ca--918388), 270 (Bz--17747, Bz--17748), s.n. [28.VIII.1896] (Bz--17740, Bz--17741); Herb. Bogoriense 17804 (Bz), 17866 (Bz); Karta 392 (Bz--17917); Koens s.n. [Mei 1912] (Bz--17874); Kollman s.n. [Java, 1838] (M, M); Koorders 9704b [2225f] (Bz--17878, Ut--80240), 22108b [109*] (Bz--17901, Bz--17902), 22985b [50*] (Bz--17881, Bz--25474), 23130b [3033*] (Bz--17877), 26857 [312*] (Bz--17899, Bz--17900), 29460b [506*] (Bz--17879, Bz--17880), 30239b (Ut--53167), 30750b [761*] (Bz--17888), 31279b [1543*] (Bz--17889, Bz--17890), 44036b [32*] (Bz--17891, Bz--17892); Kuntze s.n.

[1875] (N); Lörzing 381 (Bz--17850); Mousset 1048 (Bz--17875); Saimoendt 20 (Bz--17727, Ca--308072); Scheffer s.n. [29/5/1871] (Bz--17785), s.n. [3/10/71] (Bz--17783), s.n. [10/10/1871] (Bz--17801), s.n. [23/6/1872] (Bz--17803), s.n. (Bz--17802); Soegandiredja 36 (Bz--17796, Bz--17797), 285 (Bz--17792, Bz--17793); Teijsmann 40 (Bz--17826, Bz--17827); Thorenaar 171 (Bz--17861, Bz--17862), 354 (Bz--17863, Bz--17864); Van Steenis 415 (Bz--18047), 5674 (Bz--17844); Vordermann "YY" (Bz--17852); Winckel 8 (Ut--58388), 181 (Ut--53166), 181b (Bz--17764), 462b (Bz--17791), 727b (Bz--17775), 864b (Bz--17765, Bz--17766), 872b (Bz--17767, Bz--17768), 1636b (Bz--17788), s.n. [9 Aug. '17] (Bz--18040), s.n. [20/1/1918] (Ut--53169). Kambangan: Collector Indig. 116 (Ut--21052). Lingga: Bünnemeijer 6772 (Bz--18011). Oedjan: Bünnemeijer 6454 (Bz--18017). Pageh: Loeb 91 (Ca--294993). Papan: Bünnemeijer 7795 (Bz--18015). Riouw: Teijsmann s.n. [Riow] (Bz--18024). Sabah: Arsat 1158 (N); Cuadra s.n. [North Borneo Forest. Dept. A.2248] (W--2210675); Goklin 788 (N); Kadir s.n. [North Borneo Forest. Dept. A.574] (W--2187085), s.n. [North Borneo Forest. Dept. A.658] (W--2210792), s.n. [North Borneo Forest. Dept. A.2010] (W--2187121] (W--2187121); H. G. Keith 1166 (N, W--1674530); Tangualon bin Tiluan s.n. [North Borneo Forest. Dept. A.1558] (W--2187117); Villamil 217 (Ph, W--1376840); D. D. Wood 785 (Ca--215142, W--1291621). Salajar: Bünnemeijer 6550 (Bz--18012), 7406 (Bz--18010). Sarawak: W. M. A. Brooke 9011 (W--2319758); Clemens & Clemens 20193 [field no. 7162] (Bz--17701, N), 21090 [field no. 143] (N), 21785 [field no. 5655] (N); Foxworthy 281 (W--713261); Native Collector 273 (Ca--213855, W--1173942), 521 (W--1173984), 1077 (W--1174089); Purseglove P. 5167 (N). Siantan: Van Steenis 850 (Bz--18022, Bz--18023). Siberut: Boden-Kloss 14464 (Bz--18053, Ca--286848); Iboet 138 (Bz--18054). Simalur: Achmad 4 (Bz--18026, Bz--18027), 182 (Bz--18025, Ut--53168). Sumatra: Ajoub 299 (Bz--17986); Bangham & Bangham 640 (N), 987 (N); H. H. Bartlett 6936 (Mi, N, W--1551888), 8603 (Mi, N, W--1552910); Bartlett & La Rue 419 (Ca--243884, W--1054007); Boeea 6508 (Mi), 8125 (Mi, W--1682458), 9049 (Mi, N), 9396 (Mi, N), 9549 (Mi, N); Bruinier 189 (Bz--17958); Bünnemeijer 136 (Bz--17981), 263 (Bz--17982), 506 (Bz--17984), 1100 (Bz--17983), 3783 (Bz--17977, Bz--17978, Bz--25476, Ut--58352); Burck s.n. [1883] (Bz--17991); Daalen 394 (Bz--17985); Docters van Leeuwen-Reijnvaan 3288 (Bz--17966); Galoenji 111 (Bz--17974); Gusdorf 43 (Bz--17989); Hamel & Toroes 1165 (Mi, S); Koorders 10602b [146] (Bz--17998); Krukoff 4035 (Br, Bz--17955, N, W--1750502); Lörzing 1001 (Bz--17972), 3137 (Bz--17970), 3806 (Bz--17971), 4609 (Bz--17967, Bz--17968), 4763 (Bz--17969), 8858 (Bz--17957),

9161 (Bz—17965); Lörzing & Jochems 7572 (Bz—17956); Ouwehand 244 (Bz—17987, Bz—17988); Rutten-Kooistra 9 (Bz—17959); Saimoendt 38 [Posthumus 949] (Bz—17962, Ut—96838); Toroes 164 (Mi, N, S), 3002 (Ca—530971, Mi, N, W—1861277), 4069 (W—1080745), 4293 (N), 4962 (N, W—1681078); Van Steenis 3653 (Bz—18050), 5755 (Bz—17973), 5769 (Bz—17960), 5926 (Bz—17961); H. S. Yates 653 (Ca—234089, Mi), 1066 (Mi), 1486 (Bz—18051, Ca—263963, Mi, N), 1604 (Ca—263963, Mi). Tello: Raap 36 (Bz—18002), 42 (Bz—18003), 57 (Bz—18004). Toedjoeh: Bünnemeijer 5958 (Bz—18019). LESSER SUNDA ISLANDS: Timor: Teijsmann 8922 (Bz—17923). MOLUCCA ISLANDS: Buru: Boerlage 553 (Bz—17930, Bz—17931); Teijsmann s.n. [Boeroe Kajeli] (Bz—17932). Ceram: Buwalda 5846 (Bz—72948); Kornassi 646 (Bz—17927), 773 (Bz—17928, Ut—80197); Rutten 356 (Bz—17926, Ut—80241), 2122 (Bz—17924, Bz—17925). Sanana: Atje 3 (Bz—17934, Bz—17935). AROE ISLANDS: Kobroör: Buwalda 5103 (Bz—72573, Ng, Ng—16934). NEW GUINEA: Dutch New Guinea: Aet 108 (Bz—72569); Atasrip 44 (Bz—17940); Djamhari 342 (Bz—72894); Lam 2049 (Bz—25478); Main 411 (Bz—72861, Ng, Ng—16950); Meijer Drees 643 (Bz—72972); Pleyte 667 (Bz—72862, Ng—16958); Sawyer 228 (Ac); F. R. R. Schlechter 13818 (Bz—17938), 14303 (Bz—17937); Thomsen 664 (Bz—17939, Ut—340411a). Territory of New Guinea: M. S. Clemens 41066 (Mi); Hollrung 817 (Bz—17936). Papua: Brass 1015 (Bz—18060), 1415 (Bz—18059); C. E. Carr 15872 (N); Chalmers s.n. (Mb); Hoogland 3653 (Ng, Ng—16835, W—2213634). Province undetermined: M. S. Clemens 8280b (B). CULTIVATED: India: Herb. Hort. Bot. Calcutt. s.n. (Mu, N—photo, N—photo, Z—photo, Z—photo); U. Singh 81 (Ca—361002). Java: Herb. Hort. Bot. Bogor. XV.J.A.XXIX.4 (Bz, Bz, Bz, Bz—26360, Bz—26361), XV.J.A.XXIX.4a (Bz, Bz, Bz, Bz—26362, Bz—26363), XV.J.A.XXX.5 (Bz—17709), XV.J.A. XXX.5a (Bz—17708), XV.J.A.XLV.3 (Bz—17706, Bz—25469, Ca—301567), s.n. (Bz—17711, Bz—17712, Bz—17714, Bz—17715, Bz—17716, Bz—17717, Bz—18028, Bz—18029, Bz—18030). LOCALITY OF COLLECTION UNDETERMINED: Teijsmann s.n. "Blitoeng] (Bz—18007).

CALLICARPA LONGIFOLIA var. HORSFIELDII (Turcz.) Moldenke, Phytologia 7: 77. 1959.

Synonymy: Callicarpa horsfieldii Turcz., Bull. Soc. Imp. Nat. Mosc. 36 (2): 217. 1863. Callicarpus longifolia var. horsfieldii (Turcz.) Moldenke apud Hocking, Excerpt. Bot. A.4: 592, sphalm. 1962.

Bibliography: Turcz., Bull. Soc. Imp. Nat. Mosc. 36 (2): 217. 1863; Jacks, in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 386. 1893; Koord. & Valet., Bijdr. Kenn. Boomsort. Java 7: 175. 1900; Koord., Exkursionsfl. Java 3: 134. 1912; H. J. Lam, Verbenac. Malay. Arch. 51, 91, & 362. 1919; Bakh. in Lam & Bakh., Bull.

Jard. Bot. Buitenz., ser. 3, 3: 27. 1921; Moldenke, Known Geogr. Distrib. Verbenac., ed. 1, 64 & 87. 1942; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 2, 1: 386. 1946; H. N. & A. L. Moldenke, Pl. Life 2: 65. 1948; Moldenke, Known Geogr. Distrib. Verbenac., ed. 2, 144 & 177. 1949; Moldenke, Résumé 189 & 444. 1959; Moldenke, Résumé Suppl. 1: 13, 16, & 24. 1959; Moldenke, Phytologia 7: 77. 1959; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 3, 1: 386. 1960; Moldenke, Biol. Abstr. 35: 1687--1688. 1960; Hocking, Excerpt. Bot. A.4: 592. 1962; Moldenke, Résumé Suppl. 13: 6 & 8. 1966.

This variety differs from the typical form of the species in having its petioles, leaf-venation, and inflorescence densely pubescent, the leaf-blades distinctly rhomboid-ovate, the margins very coarsely callose-serrate except at the acuminate apex and long cuneate-acuminate base, and the calyx-rim 5-toothed.

The type of the variety was collected by Thomas Horsfield -- in whose honor it is named -- somewhere in Java and is deposited in the herbarium of the Botanical Garden at Kharkov State University in Kharkov, Russia.

Turczaninow's original description of this taxon is "C. ramis tetragonis simplicibus cum petiolis, nervis foliorum, atque inflorescentia dense pubescentibus; foliis rhombeo-ovatis utrinque longe attenuatis, a medio ad apicem grosse et callose serratis, in utraque pagina pilis raris conspersis et resinoso-punctatis; cymis brevibus petiolos parum excedentibus; calycis dentibus 5 triangularibus majusculis, corollae tubo fere duplo brevioribus; staminibus 4, pyrenis 4 apice barbatis, in statu maturo liberis. In Java legit Horsfield. A duabus species, ad § 1 in prodromo Candollii relatas jam differt dentibus calycinis quinque." Lam (1919) describes it as "A shrub, branchlets, petioles and cymes densely hairy; branchlets tetragonous; leaves ovate-rhomboid, both sides long attenuate, upper half coarsely serrate, sparsely pubescent on both sides, glandular, densier on nerves; cymes small, as long as or somewhat longer than petioles; calyx 5-toothed; teeth deltoid, rather large; corolla-tube twice as long as the teeth of the calyx; stamens 4; ovary hairy at the top. Distribution: Java. This very imperfectly described species, of which we did not see any specimen, seems to be somewhat doubtful, as regards the 5-toothed calyx, of which the teeth are large-deltoid." Bakhuizen van den Brink (1921) avers that "This doubtful species perhaps is to be considered as an abnormal form of C. longifolia Lam ? floccosa Schau."

Only two photographs of the type collection have been examined by me.

Citations: GREATER SUNDA ISLANDS: Java: Horsfield s.n. (Z--photo of type, Z--photo of isotype).

CALLICARPA LONGIPES Dunn, Journ. Linn. Soc. Lond. Bot. 38: 363. 1908.

Synonymy: Callicarpa panduriformis Léveillé in Fedde, Repert. Spec. Nov. 9: 455. 1911. Callicarpa cuspidata Bakh. (in part)

apud P'ei, Mem. Sci. Soc. China 1 (3): 17, in syn. 1932 [not C. cuspidata Hassk., 1921, nor Roxb., 1814]. Callicarpa cuspidata Lam & Bakh. apud Chang, Act. Phytotax. Sin. 1: 274, in syn. 1951.

Bibliography: Dunn, Journ. Linn. Soc. Lond. Bot. 38: 363. 1908; Léveillé in Fedde, Repert. Spec. Nov. 9: 455. 1911; Prain, Ind. Kew. Suppl. 4, pr. 1, 34. 1913; Fedde, Repert. Spec. Nov. Gesamtverz. 58. 1914; Prain, Ind. Kew. Suppl. 5, pr. 1, 43. 1921; Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 23. 1921; Chung, Mem. Sci. Soc. China 1 (1): 226. 1924; P'ei, Mem. Sci. Soc. China 1 (3): [Verbenac. China] 15, 17--18, 38, 40, & 41, pl. 1. 1932; P. Dop, Bull. Soc. Hist. Nat. Toulouse 64: 508. 1932; Moldenke, Prelim. Alph. List Invalid Names 10. 1940; Worsdell, Ind. Lond. Suppl. 1: 160. 1941; Moldenke, Alph. List Invalid Names 8. 1942; Moldenke, Known Geogr. Distrib. Verbenac., ed. 1, 56 & 87 (1942) and ed. 2, 131 & 177. 1949; Moldenke, Phytologia 3: 139. 1949; Chang, Act. Phytotax. Sin. 1: [269], 274--275, 309, & 311. 1951; Moldenke, Phytologia 4: 121. 1952; Prain, Ind. Kew. Suppl. 4, pr. 2, 34. 1958; Moldenke, Résumé 168, 242, 245, & 444. 1959; Prain, Ind. Kew. Suppl. 5, pr. 2, 43. 1960; Moldenke, Phytologia 8: 273. 1962; Moldenke, Résumé Suppl. 4: 8. 1962; Hocking, Excerpt. Bot. A.6: 535. 1963; Moldenke, Phytologia 14: 59, 99, & 142 (1966), 16: 365 (1968), and 21: 49, 54, 102, 107, & 109. 1971.

Illustrations: P'ei, Mem. Sci. Soc. China 1 (3): [Verbenac. China] pl. 1. 1932.

Perennial herb or shrub, about 1 m. tall, softly villous throughout except for the flowers, usually with simple hairs; leaves sessile or subsessile to short-petiolate; petiole (when present) to 5 mm. long; leaf-blades papyraceous or chartaceous, obovate or oblong, 4--13 cm. long, 1.5--5.5 cm. wide, acuminate at the apex, coarsely mucronate-dentate along the upper margins, gradually narrowed from the middle to the rounded or subcordate to cordate base, softly villous; secondaries about 7 per side; peduncles slender, 1.2--3.5 cm. long, villous-pubescent; cymes small, axillary, dense; pedicels to 2 mm. long; calyx 2 mm. long, villous-pubescent and glandulose outside, glabrous within, the rim 4-toothed or -lobed, the lobes or teeth lanceolate, 1.3 or more mm. long, acute or acuminate at the apex, extending to the middle of the calyx; corolla pinkish or red to light-purple or purple, about 4 mm. long, puberulent or pubescent outside, glabrous within, the tube 3.5 mm. long, slightly oblique, gradually ampliate above, the limb 4-lobed, the lobes 1 mm. long, obtuse at the apex; stamens 4, inserted near the base of the corolla-tube, exserted, 8--9 mm. long; anthers oblong, 1.5 mm. long, glandulose on the connective; style filiform, surpassing the stamens, ampliate at the apex; ovary glandulose; fruit pale- or deep-lilac.

This species was based by Dunn on Hongkong Herb. 3390, collected in natural woods near Yenping, Fukien, China, in 1905. Callicarpa panduriformis is based on Chaffanjon 2341 from Kweichow, China. For a time I considered this taxon to be synonymous with C. rubella var. hemsleyana Diels, but I now regard it

as conspecific with C. longipes. Bakhuizen van den Brink (1921) regards C. longipes as a synonym of C. cuspidata Roxb., which, however, is actually C. pedunculata R. Br. The C. cuspidata accredited to Hasskarl is C. longifolia Lam., while that accredited to Bakhuizen van den Brink is in part C. rubella Lindl. and in part C. longipes.

Recent collectors have found C. longipes growing in forests, mixed woods, and thickets, at altitudes of 700 to 820 meters, flowering in June and fruiting in December. They record the vernacular name "sai ip un mat". The specific epithet is uppercased by some writers, for no valid reason. The corolla is described as "pinkish" on Ching 3230, "red" on Peng, Tak, & Kin 561, "reddish-white" on Sin 10020, "light-purple" on Tsiang 10159, and "purple" on H. H. Chung 3370.

P'ei (1932) comments that "The Fukien plant, Chung 3370, has coursely dentate leaves which are larger than those of the type and of Peng, Tak and Kin 561. The floral characteristics are the same in all the specimens cited. This species, as the leaf characters, concerned closely resembles Callicarpa Dielsii P'ei differeing from it by its long acuminate calyx lobes and denser pubescence on both surfaces of the leaves." He cites a Ching 3230 from Anhwei and Chun 5689 & 5777 from Kwangtung, doubtless deposited in the Arnold Arboretum herbarium, and an isotype (Hongkong Herb. 3390) in the same herbarium. He notes under what he calls C. dielsii that "It appears to me to be closely related to Callicarpa longipes Dunn, the difference being the truncate calyx of Callicarpa Dielsii (Lévl.) P'ei while that of C. longipes Dunn. is toothed." We now regard his C. dielsii as a variety of C. rubella Lindl., namely, C. rubella var. dielsii (Léveillé) Li.

Dop (1932), in describing C. bracteata Dop, says "Cette espèce est voisine du C. longifolia Lam. Elle s'en distingue aisément par les pédoncules des cymes beaucoup plus longs, les bractées foliacées. La longueur du pédoncules la rapprocherait du C. longipes Dunn de Chine et de Hongkong; mais les feuilles longuement attenuées, la calice à dents très petites, l'eloignent nettement du C. longipes à feuilles arrondies ou cordées à la base et à calice divisé jusqu'au milieu."

Chang (1951) cites Tse Hai 547 and nos. 95, 962, 3370, 3927, 4729, 5689, 5777, 5884, 7059, 8666, 12008, 21185, 21320, 25151, 25319, 31621, & 43103 of collectors and/or herbaria for which he gives the names, unfortunately, only in Chinese characters.

Material of C. longipes has been misidentified and distributed in herbaria under the names C. formosana Rolfe, C. giraldiana Pamp., C. longifolia Lam., and C. rubella var. hemsleyana Diels.

In all, 14 herbarium specimens and 3 mounted photographs, including type material of both names involved, have been examined by me.